

## U. S. PICKS MURRAY FOR BIG MAGNETO JOB

President of Bethlehem Motor Truck Company Will Manage Bosch Plant.

During the past week A. Mitchell Palmer, the Allen Property Custodian of the United States, was called upon to find a man who was competent to step in, reorganize and operate one of the greatest industries in the United States.

That seems like quite a difficult problem, but it didn't take Mr. Palmer long to put his finger on his man. He laid his proposition before Arthur T. Murray, president of the Bethlehem Motor Truck Company of Allentown, Pa., and Mr. Murray, being a quick thinker, accepted.

Arthur Murray, whose activities in the motor field are known throughout the United States, is accustomed to taking on big propositions and running them successfully. Among his most recent successes was the organization and operation of the now famous Bethlehem Motor Corporation, of which he is president.

The Bosch Magneto Company, of which Mr. Murray has been appointed general manager, was recently taken over by the United States Government under the alien enemy ownership act.

It is probably the largest concern of its kind in the world. Its assets are stated as \$2,000,000, with no liabilities. It is the sole manufacturer in this country of the famous Bosch magneto.

Mr. Murray's problem will be one not only of reorganization, of which he is a known master, but he will also be responsible for the manufacture and marketing of a product which while recognized as being practically the leader in its field is still in more or less bad odor owing to the natural feeling of enmity for an alien product.

Mr. Murray's executive and business ability must therefore be backed by an unusual amount of diplomacy and tact in handling this more than difficult situation.

Mr. Murray, a native of Norwalk, Conn., though still a young man, has achieved some remarkable successes. His record with the Brady-Murray



ARTHUR T. MURRAY.

Motors Corporation and with the Bethlehem Motors Corporation is remarkable.

In announcing Mr. Murray's acceptance of this new post the secretary of the Bethlehem Motors Corporation made it quite clear that Mr. Murray would continue as the executive and active head of the Bethlehem Motors Corporation at Allentown.

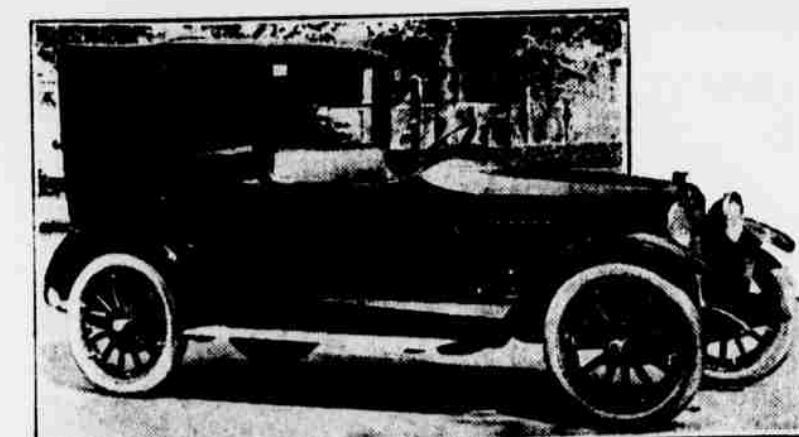
## LIBERTY CAR BOOMS BONDS.

Offered as Prize to Person Buying Most.

In its final effort to put its third Liberty Loan drive over with a bang, the Rainbow Division of the Automobile and Allied Trades purchased a Liberty car and offered it last evening to the person buying the greatest amount of bonds at the Palace, Riverside, Astor, Park and Liberty theatres.

There was tremendous buying under this unique stimulation. The winner will be officially announced to-morrow.

## Society Folk Like This Liberty.



One sees many of these smart Liberty automobiles on Fifth avenue these days because the well to do, catching the spirit of the times, have found the economy it represents in first cost and in operation a valuable ally. And the Liberty takes its place in the garages of society folk without getting a cold shoulder from the higher priced cars. Its class and quality are quite apparent.

## EARLY BUYERS WILL WIN.

Boston Dealer Points to Possibility of Shortage.

"Advising motor car buyers to select their cars early may seem like a stock argument for spring time," says George S. Morrow, president of the Boston Motor Company of New York, "but this year there is no question but that the buyer who delays very long may find himself unable to get the car of his choice."

"This spring has been a busier one than any I have ever seen before in the automobile business. We have been literally swamped with orders for cars, and while we have been able to make deliveries to date there is no doubt that later in the season will see difficulties in getting cars from the factory."

"While the production of the Boston plant this year will be large, the demand for these cars is so great that already I feel apprehensive that the end of the season will see the factory entirely sold out of this year's output. The public is especially keen for the Liberty car because of its economy and ability to do hard work."

## USE YOUR BRAKES WITH GREAT CARE

Expert Gives Valuable Advice on Handling Them in Various Situations.

"Use your brakes intelligently and only when absolutely necessary is an excellent motto to have printed on the instrument board of every car," says William H. Stewart, Jr., president of the Stewart Automobile School. "The average operator—yes, the average skilled driver, uses his brakes too much. This wears the brakes, racks the mechanism of the car and injures the tires—three good reasons why such treatment should be avoided."

"Learn to stop your car by coasting to the point where you wish to stop. This may be learned with a little practice and should always be done on a level road. If you find you are going a little too far a light pressure on the pedal will stop you. This is far better than dashing up to a place and then jamming on both brakes to make a spectacular stop. Besides wearing the brake lining and attachment it racks the wheels severely, sometimes making the wheels lock and the tires slide. This wears away the tread in one spot. If time is gone frequently the tread will be ruined and the fabric exposed. A tire worn away in this manner cannot be returned for adjustment, as it has been ruined by abuse."

"When coasting down a hill use the brakes alternately. By changing from service brake to the emergency brake the first is allowed to cool, prolonging its life. The longer it is used the less it costs for repairs, and so the total cost of upkeep is reduced. Some cars for mountainous touring have an attachment which injects water on the brakes every time they are applied. It consists of a water tank which must be filled regularly, as it is separate from the cooling system, and a pump which is fastened to a brake rod and so throws water every time the brake is used. But changing from one brake to the other does not cool the drums on the wheels, as one brake operates on the outside and the other on the inside of each drum. So it is advisable to relieve the brakes as much as possible."

"This is accomplished by using the engine as a brake. On a gentle slope stay in high gear with engine throttled down and do without the brakes. On a steeper grade use the second gear or the first if the car is a heavy one."

"When the emergency brake is used on a hill it must be applied with caution or the brake rods will be broken. If the brake is set and the hand removed it cannot give when the car passes over water bars, etc. At this time the rear axle moves backward, owing to the flattening of the springs, and if the brake rods are drawn tight the strain comes on them, stretching or breaking some part. While using the foot brake the foot automatically yields to the strain, but if the emergency brake is set it cannot yield."

"Where one brake rod passes through a tube carrying the other they may become frozen, that is, stuck together if they are not properly lubricated. Be sure that the grease is turned down at least one turn a day. If they do become seized, remove the lower part of the grease cup and force kerosene into the hole with an oil gun, working the brakes meanwhile to loosen them."

"Look over the equalizers, if they are provided, and adjust the rods to the same length to insure best action. If brake lining is badly worn watch the workman while he replaces it, and perhaps the next time you can do it yourself."

"Test the brakes occasionally by speeding up and then applying. If the car keeps on or swerves to one side the brakes need adjusting. A better way to test them is to jack up both rear wheels and apply the emergency brake a few notches, enough to grip the wheels firmly. Try both wheels to see if they turn easily. If one turns more readily than the other that one must be tightened. To test the foot brake, a jack may be applied to hold it in position, but it will be better to have a helper if one is available."

## GOODRICH'S TOURING SERVICE.

Active With Route Cards and Road Signs.

The Goodrich national touring bureau, the only organization that covers each and every State in the union, facilitated over 1,000,000 touring trips during 1917. Last year the bureau distributed, through its branches and also through thousands of tire dealers, \$240,505 tour cards, 510,000 tour books and 1,490,000 State map folders.

## NEW TRUCK AND TRACTOR CO.

Big Concern is Established Now in Detroit.

The most important announcement in the automobile industry this week is that of the formation of the Power Truck and Tractor Company of Detroit, Mich., which has just been incorporated for \$2,500,000. The organization includes a number of well known men in the truck, tractor and passenger industry. Most of the officers of this new corporation are men who have had considerable experience in not only manufacturing these utilities but also in distributing them in large quantities. The personnel of the company will be announced within a few days.

A well equipped factory has been purchased in Detroit, Mich., the heart of the automobile industry. This factory is thoroughly equipped and has ample facilities for turning out several thousand trucks and tractors a year.

"Our company will build a one ton, two ton, 3½ ton, and a five ton model," says one of the officers. "Standard units of the highest class will be used. Our designers have the quality construction idea paramount in their mind."

The company also will manufacture two tractor models. The engineer who has designed the tractor model has had considerable experience in tractors, having designed a tractor which won the blue ribbon at the Los Angeles and San Francisco exhibitions.

The Power Truck and Tractor Company is not a new company from the standpoint of its product. The one ton model, which is now being efficiently placed on the market, has been in actual use for the past year and a half. Duplicate models have been in operation between Detroit and certain Michigan cities daily during this time carrying from one to three tons on each trip. In one case one truck made two trips a day to a Michigan city twenty-five miles away and detailed information has been kept to gasoline, oil and tire consumption and maintenance expense.

## No Increase Here

Many automobile schools are raising their rates of tuition. Because of the wonderful and continued growth of the Atkinson Auto School, we are able to offer the same excellent courses as formerly at the old price. This is an announcement that we are very glad to make because it means that our graduates have been at a school with us and have spoken well of this school. Let us prepare you now for your part in the Government service. Trained men and women are needed and will be needed throughout the war.

COMPLETE COURSE OF 60 HOURS SHOP PRACTICE AND 10 HOURS INDIVIDUAL ROAD WORK \$55

Special Classes for Ladies Call, write or phone 3271 Circle for books

Atkinson Auto School "Where You Learn by Experience"

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## BUILDING THE MODERN AUTOMOBILE IS A FINE ART. A Jaunt Through the Marmon Factory—No. 2.



No. 1—Examining and testing the crank cases before assembling the engine. A file of "readers" is shown at the right.

No. 2—The "scrapbook" indicates whether or not the steel is of proper hardness. Transmission and drive gears, pinions, universal and drive shafts, etc., are tested in this way.

No. 3—The testing department of the aluminum foundry. The rough castings must be free from all defects before passed.

No. 4—Incoming finished materials being examined by expert testers immediately after they are checked in at the receiving room.

No. 5—"Four inspection" in the rear axle department. The inspector is gauging the torque tube.

No. 6—The spring test. Not only are all big springs tested this way, but smaller springs as well.

In the Marmon 34, and most of the parts are cast in the foundry in the plant. As the castings are made they are delivered to the inspection department, and before any machine work is started very thorough investigations are made. Radiator shells, motor cases, clutch cones, transmission cases, differential housings and many other smaller parts are very carefully examined. It is quite necessary that the metal be of the proper thickness; cureshifts, sandholes, defective materials are discovered before the work of finishing the castings is begun. Any piece not up to standard is turned back—either to the junk pile or into the melting pot.

As the castings go to the machines for finishing there is an ever ready crowd of inspectors to determine whether the work is being done properly. For instance, we visited the department which machines and assembles the torque tube that carries the drive shaft. Large lathes were turning the ends of this torque tube down to the proper fit. The machinist would strip off the metal, both inside and out, with his tool so that it conformed with the blue print from which he was working. As the piece came from the machine the inspector would test the size of the holes—using "go" and "no go" gauges to be sure that the work was within the "limits" allowed. All "houses" were measured and gauged to see that the dimensions were proper. This is known as "floor inspection," and every part from each department is inspected in this manner. It is not left to the operator of the machine. The inspector, with accurate gauges, must put his

stamp of approval before the piece can go further into the assembly of the car.

The crank case receives the same kind of inspection. The large casting comes into the machining department in rough form. It is milled, machined, drilled, the cylinder bores are made, the recesses for the bearings are cut, and the inspector must pass on these operations before the engine is assembled. Every hole, every bearing, each part in its relationship to other parts, is carefully examined.

The local viewpoint in road building must give way to the national and some master plan must be evolved for solving our transportation problem on American roads. A director of railroads and a director of shipbuilding are very well and excellent, but why not a director of motor truck transportation?

"If this country were to suffer invasion from a foreign foe, one of the first steps this Government would take would be to extend to the maximum its transportation facilities. National military highways would be the cry of the hour, but roads cannot be built in a day. It

## OUR U. S. HIGHWAYS FEEDERS TO FRANCE

Transportation One of the Biggest Factors in Winning the War.

"It has been said that 'the battle line in France is the battle line of America.' By the same token the American highways are all feeders to the battlefields of France," says W. O. Rutherford, second vice-president of the M. F. Goodrich Rubber Company, who has just been chosen to represent the Motor and Accessory Manufacturers Association in the newly organized Highway Industries Association.

"We all know that transportation is one of the biggest factors in winning the war," continues Mr. Rutherford. "Now let us understand at the outset that the word 'transportation' involves a number of agencies. It is not only freight trains and ships, but it is everything that helps to move men or merchandise from one point to another; thus canals, highways, horses, motor trucks, passenger cars, and so on."

"There is no shortage of coal," Dr. Rutherford says. "There is enough coal in our mines to last a hundred years. And so it is with iron ore, or with farm products and the whole range of foodstuffs. Speed up transportation on the seas, on the railroads, on the highways, and we shall by that process overcome production shortages, fuel shortages and serious current problems, namely, inability to make supply measure up to the demand, in speeding up our transportation agencies."

"It is a trait in human nature to veer too strongly in one direction. The American public suddenly cries, 'Give us more ships.' This same public, after checking the expansion of railroads for two decades, berates the rail carriers for inefficiency when the testing time comes. So far as our railroads are concerned we may still feel a commendable pride in what they have achieved and are achieving; but let us fancy for a moment that we possessed hundreds of locomotives and other rolling stock which could not be used because rail road tracks were lacking. We would get busy and make roadbeds. Yet in another field of transportation a condition almost parallel to this picture exists. We have close to half a million motor trucks in this country, but we are not getting the most out of them because only a scant portion of our roadways are in such condition as to admit of efficient motor truck operation."

"The United States Government and our captains of industry recognize the importance of motor truck haulage. It has just as great functioning power in carrying commerce as it has back of Haig's battle line in France. The Government is now trucking from the central West to the Atlantic seaboard, but bad roads make the work slow and doubtful. What is needed is highways with a foundation strong enough to carry heavy burdens and built into a network of national routes."

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W. O. RUTHERFORD.

the moments when war is cruellest to us we see with greatest clarity of vision the answer to our biggest peace problems. One of these problems is transportation, and in this time of stress we perceive—at least every thinker does—that the motor truck is the agency that answers our traffic problems, whether they be of war or of peace."

According to Mr. Rutherford the Highway Industries Association recommends a central control and authority of all highway construction, for the purpose of assuring the development of roads essential to the hauling of munitions and supplies by motor trucks throughout the country, since transportation is of paramount importance in winning the war.

## AUTOS FOR SHORT VACATIONS.

Many Owners Will Get Away Over Sunday.

Will there be much touring this year? It is a question invariably asked when one sees more motorists get together.

W. W. Wright, distributor of the Durr, believes that while there may be fewer long trips taken the automobile will be used more freely than ever before for short vacations.

"Sensible people who have studied the vacation question with a view to obtaining the most enjoyable outing at no more expense than is actually necessary will go in motor cars," he says. "This class of thrifty folk has multiplied many fold since the war began."

"Of course there are quite a few who will cut out vacations entirely on the theory that their money can be used this year for a better purpose. They are actuated by admirable motives without a doubt. On the other hand health is necessary to maintain the superfluency required of all of us in these war times, and I believe it is conceded that all work and no play 'makes Jack a dull boy.'"

"Therefore I believe that time spent on vacation is well spent. It strengthens the body and sharpens the mind. It fits the tourist for bigger and better work on his return."

"Touring in a light, sturdy car that uses up but little fuel and tires is about the most inexpensive vacation that can be taken. Provision for cooling and sleeping en route can be made. If that is not desired there are good country hotels everywhere where food and beds are good and reasonable in price."

"There is no other means of travel that can compare with the motor car. It is the only vehicle that will take you exactly where you want to go. You can move as you please, where you please."



\$1250 and \$1525 f. o. b. Racine

## More for \$1250 Than in Any Other Car

### 120-Inch Wheelbase

The \$1250 Six has a 120-inch wheelbase, which makes it the roomiest car in its class. Its long low lines make it a striking car.

The motor is a 40-horsepower Six. Mitchell engineers have for years given all their attention to Sixes, and the motor is the final result.

The car is very economical, both in fuel and in tires. The rear springs are shock-absorbing. The equipment is extra-complete.

This is the only car of such size, power and class which is sold at \$1250 today.

\$1250 f. o. b. Racine

120-In. Wheelbase 40-Horsepower Six

\$1525 f. o. b. Racine

127-In. Wheelbase 48-Horsepower Six

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MITCHELL MOTOR CAR CO. OF N. Y., INC. Salesrooms—New York: Columbus Circle, Facing South. Tel. 8000 Col. ARTHUR WALTER LEBERS, Inc. 1450 Bedford Ave., Brooklyn 46, Bklyn. BRONX MITCHELL MOTOR CO., 1821 Grand Concourse, Bronx. NEWARK—Foley Motor Car Co., 37 William St. JERSEY CITY—D. W. Roumire, 225 Mercer St. Prices subject to change without notice.



DORT "The Quality Goes Clear Through"

"Time Is the Stuff" Franklin said: "Time is the stuff that life is made of."

The chief function of a motor car is to save time—to cut out the waste of hours in getting from place to place by ordinary means—to increase the efficiency of the user.

The DORT is pre-eminently a utility car—a car for active, useful people; ample without excess, comfortable without clumsiness. Its every line bespeaks efficiency without waste.

Moderate in size, light in weight, it "goes easy" on gasoline, oil and tires. And because it is sturdy and honestly built, of worthy materials, it stands up under the most constant, taking-it-as-it-comes usage.

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Four-door Cars

The DORT Sedan, Coupe and Sedanette enjoy great popularity among those seeking a car of fine appearance, safety and comfort at a low price.

DORT MOTOR CAR CO., Flint, Michigan

Open Cars

Four-door Cars

Sedanette \$1200

Sedan \$1250

Coupe \$1265

All prices F. O. B. Flint, Mich.

